Take Home Quiz 2: Quadratic vs. Linear Functions

Geometry

Due: September 28th, 2015

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
|  | f(x)= 3x+4 | g(x)= x2+3x+4 |
| Type of function |  |  |
| Make a table of the values | |  |  |  |  | | --- | --- | --- | --- | | x |  |  |  | | f(x) |  |  |  | | |  |  |  |  | | --- | --- | --- | --- | | x |  |  |  | | g(x) |  |  |  | |
| Graph the equation | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |
| Find the y- intercept of each function. |  |  |
| Compare the functions.  What is the same?  What is different? |  |  |

|  |  |  |
| --- | --- | --- |
|  | Figure 1 | Figure 2 |
| Draw the next picture for each figure |  |  |
| Make a table of the values | |  |  |  |  |  | | --- | --- | --- | --- | --- | | x |  |  |  |  | | h(x) |  |  |  |  | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | x |  |  |  |  | | k(x) |  |  |  |  | |
| Using the tables, describe the function. Justify your response. |  |  |

**ON A SEPARATE PIECE OF PAPER: STAPLE IT TO YOUR QUIZ!**

You start college with $1,500 scholarship to use for basic needs and supplies throughout the semester. You anticipate that you will need $650 for books at the start of the semester. You plan to spend the rest of the Monday through the next 16 weeks of the semester. What kind of budget can you set up based on this information?

(a) Write an equation.

(b) How much can you spend each week?

(c) What assumptions are you making in part b?